

Minimum Invasive Surgery -A Conceptual Study of Sushrutacharya in Otorhinolaryngology

Gangaprasad A Waghmare*

K G Mittal Ayurved College, India

Submission: December 17, 2016; **Published:** December 30, 2016

***Corresponding author:** Gangaprasad A Waghmare, K G Mittal Ayurved College, Charni road, Mumbai-02, Tel: +91 9096566633; Email: drgw007@gmail.com

Abstract

Minimum invasive surgery is becoming more and more common in hospitals today. These procedures are performed through tiny incisions instead of large openings. Because the incisions are small, patients tend to have quicker recovery times and less discomfort than with conventional surgery - all with the same benefits.

This word seems to be novel word in *ayurveda* it is technological advancement over the traditionally used surgical procedures. In *ayurveda* the pioneer of surgery “*Sushrutacharya*” has told many minimum invasive procedures like *kshar karma*, *Agni karma* etc. *Sushruta* called “*Anushastra*” to the instruments which being used for Minimum invasive surgery. Today’s Minimum invasive surgery is nothing but the technological advancement of “*Anushastra*” which was told by Sushrutacharya Thousand year before in Ayurveda Text.

Keywords: Minimum invasive surgery; Kshar karma; Agni karma; Sushrutacharya; Anushastra; Ayurveda

Introduction

Otorhinolaryngology has always strive to improve the diagnostic and therapeutic possibilities of managing afflicted organ by developing technically and conceptually new and advanced treatment techniques. The Endeavor to develop methods with minimized patient discomfort during interventional surgery in the head and neck region was an essential motive which gave rise to the discipline of ENT Medicine [1-3]. Since fairly recently, the term “Minimum invasive surgery” (MIS) has been come firmly established in the domain of surgery. The possibilities of replacing a substantial number of routine operations by endoscopic procedures with low level of discomfort for the patient and shorter period of hospitalization has given the term “Minimally invasive” even further wide ranging significance. This word may seem to be novel word in *ayurveda*. It is a technological advancement over the traditionally used surgical procedures. The utility involves use of incisions of smaller size and fewer numbers and use of special equipment’s that could be used for carrying out microsurgery.

Sushruta has always emphasized upon correctly locating the vital points of body i.e *Marma*; before any surgical procedure. The minimum invasive term is used for both diagnostic purpose and for invasive therapeutic purpose [4,5]. In ENT diseases many diagnostic procedures required invasive process to give correct diagnosis. In minimally invasive therapeutic procedures

we do that for minimum blood loss, minimum intra-operative procedure time, and good exposure of diseased part and for less post operative hospital time eg. Functional endoscopic sinus surgery.

Discussion

In Otorhinolayngology all the operative parts must be invade through a small aperture like nostrils, ear canal and through throat. Development of micro surgical instruments like micro-scissors, micro-forceps, micro-scalpels has been a wonderful development in conducting “minimum invasive surgery”(MIS). Sushrutacharya called these small invasive instruments as “*Anushastra*”. Acharyasushruta, the pioneer of Indian surgery also had in his mind all the above mentioned advantages for treating the number of surgical problems by minimally invasion [6,7].

a) *Anushastra*: (Micro surgical instruments) Ref.su.su 8/15

i. *tvakasara*

ii. *sphatika*

iii. *kacha*

iv. *kuruvinda*

v. *jalauka*

- vi. *agni*
- vii. *kshara*
- viii. *nakha*
- ix. *leaves of goji*
- x. *leaves of sephalika*
- xi. *leaves of saka*
- xii. *karira*
- xiii. *bala*
- xiv. *anguli*

These are various types of Anushastra mentioned by Sushrutacharya which should be used as measure of MIS in otorhinolaryngology. Anushastra (MIS) are particularly indicated for surgical measure in children or who afraid to undergo surgery and also in circumstances where no availability of major instruments. Ref. susu 8/16. Here mentioning some of the minimum invasive surgical procedure explained by sushrutacharya in many diseases [8].

I. Agni Karma: (Thermal cauterization): Fire cautery treatment has been described to be superior, as the disease treated by it does not relapse. Sushruta has suggested this therapy as an alternative in many surgical diseases.

II. Cervical lymphadenitis

III. Medoja galagand (Goiter)

IV. Shiroroga (Diseases of Head)

V. Adhimanth (Glaucoma): It should be applied when the vitiated *vayu* has afflicted the skin, muscle, vessels, ligaments, joints and bones and when it is associated with severe pain [9].

VI. Kshara Karma-(Caustic application): The caustic have been considered important as they may prove even better than the sharp instruments sometimes because of their capability to perform excision, incision and scraping. Being a composite of many drugs, it alleviates the three doshas.

This procedure should be used in many surgical diseases in otorhinolaryngology are

- a) Aural polyp (*Arsha*)
- b) Benign Tumour (*Arbuda*)
- c) *UpajivhaandAdhijivha* (Disease of Tongue)
- d) Diptheria (*Rohini*)
- e) *Mukhroga* (Oral diseases)
- f) Keratosis (Tonsils)
- g) Pre-Auricular Sinus

VII. Rakta Mokshana: (Leech Therapy): The Anushastra which are used for Raktamokshana are

- a) *Shrunnga*
- b) *Alabu*
- c) *Jalauka*

Raktamokshana as minimally invasive surgical procedure can be applied in many diseases in Otorhinolaryngology [10].

- i. *Jivharoga*- sublingual vein
- ii. *Galagand*- femoral vein
- iii. *Taluroga* - on inner aspect of cheek
- iv. *Kasa*- medial cubital vein
- v. *Karnaroga*- vein on mastoid process
- vi. *Nasaroga*- vein on tip of nose
- vii. *Shiroroga*- frontal or temporal vein

Conclusion

It is up to physician and surgeon of all the system to appreciate the scientificity of this branch of surgical technique; if it is taken up as a specialized system of treatment, one can achieve the best possible result with simple or no effort as the basic ancient surgery is dependent on *ashtavidha shastrakarma* (Eight types of surgery). Anushastra are more comfortably used to do these *ashtavidha shastrakarma* (Eight types of surgery) in otorhinolaryngology. Keeping all these in mind, sushrutacharya had lay foundation in the field of surgery to do a number of technique, devices and instrument which causes minimal pain, minimal injury and minimal post-operative period.

References

1. Alexander Rosinkin, VT Palchun, NL Voznesenky, Diseases of Ear, Nose and throat. MIR Publishers, Moscow.
2. Veni madhav shastri Joshi (1968) Ayurvediya Shabdakosha, Maharashtra Rajyasahitya and Sanskruti Mandal, Mumbai, India.
3. KB Bhargava (2000) Short text book of ENT Diseases, Usha Publications Gopal bhavan, Tagore Road, Mumbai 54, India.
4. Simson Hall, Barnard H. Colman Churchill (1981) Diseases of Ear, Nose and throat, Livingstone, Robert Stevenson House.1-3 Baxter place leith walk, Edinburgh, UK.
5. PL Dhingra (1998) Diseases of Ear, Nose and throat, BI Churchill Livingstone Pvt. Ltd.54, Janapath, New Delhi, India.
6. Yadavaji Trikamji Acharya (1994) Dalhan, Nibandha Sangraha comm. on Sushruta, Chaukhambha Sanskrit Sansthan, Varanasi, India.
7. Kaviraj Ambikadatta Shastri Vidyotini (1970) Hindi Comm Edited by shri Rajeshwar Datta Shastri Bhaishajya Ratnavali-Choukhambha Sanskrit Sansthan,Varanasi, India.
8. Yadavji trikamji aachrya, Ayurned Deepika (1941) Chakrapani data comm.on -Charak Samhita, Nirnaya Sagar Press, Mumbai, India.
9. B K Mahajan (1999) Methods in Biostatistics, Jaypee Brothers Medical Publisers Pvt. Ltd. Dariyaganj, New Delhi, India.
10. Acharya Priyawat Sharma, Dravya Guna Vignyan, Published By Chaukhambha Bharti Academy, Varanasi, India.

**Your next submission with JuniperPublishers
will reach you the below assets**

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats
(Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

Track the below URL for one-step submission

<https://juniperpublishers.com/online-submission.php>